FORAGE SUITABILITY GROUP

Loamy (AWC > 6")

FSG No.: GO32XY005WY

Major Land Resource Area (MLRA) : 32 - Northern Intermountain Desertic Basins

Physiographic Features

The area is an intermountain desertic basin with approximately half of the area being federally owned. The elevation ranges from 3,609 to 5,906 feet (1,100 to 1800 meters). Alluvial fans and slopes are the dominant land form between the mountains the stream terraces. In some places the plains are eroded to the clay shale bedrock and there are areas of badlands.

Climatic Features

This area falls between the mountains and the valley areas. Annual precipitation ranges from 5 - 14 inches per year. Wide fluctuations may occur in yearly precipitation and result in more drought years than those with more than normal precipitation. Maximum precipitation occurs in the spring and the fall. The low and erratic precipitation provides only a small amount of water for growing crops. The Wind-Big Horn River and its tributaries bring irrigation water into the area from bordering mountains. Temperatures show a wide range between summer and winter. Winds are generally blocked from the basins by high mountains, but can occur in conjunction with an occasional thunderstorm.

There is a wide variation in temperature, predominantly due to the high elevation and dry air which permits rapid incoming and outgoing radiation, and the passage of both warm and cold air masses.

For further climatic information look in the Field Office Technical Guide, Section I, Climatic Data, or refer to the National Water and Climate Center web page at http://www.wcc.nrcs.usda.gov.

Soil Interpretations

This group consists of deep, medium textured soils. The loam soils tend to be mellow and are easily worked, and have a pore-size distribution that results in good water retention and aeration. These soils have a water holding capacity (AWC) of greater than 6 inches in 60 inches of root depth. The permeability class ranges from slow to moderately rapid.

The soil survey maps were completed for the purposes of developing plans for tracts of land and can not be used to determine the soils on or the suitability of a specific site. Consequently, small areas of significantly different soils are not identified on the maps and may occur in any map unit.

Refer to Appendix A, Forage Suitability Group Rules in Section II, of the Field Office Technical Guide, Pastureland and Hayland Interpretations for the parameters used in grouping the soils.

Soil Map Unit List

For a complete listing of soil components and what Forage Suitability Group the soil is in, refer to Appendix B, Section II of the Field Office Technical Guide, Pastureland and Hayland Interpretations.

Adapted Species List

Refer to Appendix C, Adapted Species for Forage Suitability Groups in Section II of the Field Office Technical Guide, Pastureland and Hayland Interpretations.

Production Estimates

Production estimates are based on management intensity (fertility regime, irrigation water management, harvest timing, etc.) and should be considered as estimates only. The estimates should only be used for making general management recommendations. On site production information should always be used for making detailed planning and management recommendations when available.

5 - 9 Precipitation Zone

Irrigation: The expected production for alfalfa would range from 4 to 6 tons per acre. The expected production for grass would be from 3,000 to 6,000 pounds per acre.

Dryland: The expected production for grass would be from 225 to 600 pounds per acre. Legumes are not suited.

10 - 14 Precipitation Zone

Irrigation: The expected production for alfalfa would range from 4 to 6 tons per acre. The expected production for grass would be from 3,000 to 6,000 pounds per acre.

Dryland: The expected production for grass would be from 500 to 1,100 pounds per acre. Legumes are poorly suited.

Production on pastures in many instances is species dependent and depends if the pasture is a single species pasture or a mixture of grass species.

Forage Growth Curves

Refer to Appendix D, Section II of the Field Office Technical Guide, Pasture and Hayland Interpretations.

Management

The relationship between soils, vegetation and climate on any given site is historically driven by the ability of the plants to grow and change as conditions warrant and has allowed various species to express themselves naturally. Under agronomic conditions, production-enhancing practices have altered the original limits of the biomass production. The modification of growth factors, customized selection of species and wise use of a variety of management practices have the potential to produce yields and quality far superior to those found in the native state.

These soils when in forage management system should see organic matter at a steady or a slowly climbing state. If erosion from either wind or water is a concern, the current erosion prediction tool should be used to ensure that the erosion concern is addressed properly. Refer to the pasture and hayland planting standard or the forage harvest standard in the Field Office Technical Guide, Section IV for further management information.

FSG Documentation

Data References:

Agriculture Handbook 296 - Land Resource Regions and Major Land Resource Areas
Natural Resources Conservation Service, National Water and Climate Center (NWCC)
National Soil Survey Center, National Soil Information System (NASIS)
National Range and Pasture Handbook
Natural Resources Conservation Service, Field Office Technical Guide (FOTG)
Various Agriculture Research Service (ARS), Cooperative Extension Service (CES), and Natural Resources Conservation Service (NRCS) information on plant trials for adaptation and production.
"Dryland Pastures in Montana and Wyoming" Species and Cultivars, Seeding Techniques and Grazing Management, Montana State University, EB19

State Correlation:

This site has been correlated with the following states:

Forage Suitability Group Approval:

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Approval Date:	8/10/01